UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF
CHEMICAL SAFETY AND
POLLUTION PREVENTION

CORRECTED DOCUMENT

MEMORANDUM:

To: Maggie Rudick

From: Jacquelyn Marchese

Secondary Review: Pesticide Efficacy Review Committee (PERC)

Date: July 6, 2015

Subject: PRODUCT PERFORMANCE DATA EVALUATION RECORD (DER)

THIS DER DOES NOT CONTAIN CONFIDENTIAL BUSINESS INFORMATION

Note: MRIDs found to be **unacceptable** to support label claims should be removed from the data matrix.

DP barcode: 427500
Decision no.: 496908
Submission no: 969016
Action code: R310
Product Name: Ortho Lawn Insect Control
EPA Reg. No or File Symbol: 239-ETEA
Formulation Type: Granular Insecticide
Ingredients statement from the label with PC codes included:
0.115% Bifenthrin PC: 128825

Application rate(s) of product and each active ingredient (lbs. or gallons/1000 square feet or per acre as appropriate; and g/m^2 or mg/cm^2 or mg/kg body weight as appropriate):

- On lawns: 1-2 lbs of product uniformly spread over 1000 ft^2 = **0.05-0.1 lb a.i./acre**, 3 month control apply 4 lbs of product for every 1000 ft^2 = **0.2 lbs of a.i./acre**
- Centipedes: 4 pounds of product over 1000 ft^2 = **0.2 lbs of a.i./acre**
- Fire ant mounds: 1-3 tablespoons of product per mound
- On ornamentals and flowers: 0.5-1 lbs of product per 500 ft^2 = **0.05-0.1 lb a.i./acre**
- Vegetable gardens: 1 lb of product per 500 ft^2 = **0.1 lb a.i./acre**
- Home foundation/barrier treatment: 0.5-1 lb of product per 500 ft^2 =**0.05-0.1 lb a.i./acre**, 3 month control apply 2 lbs of product per 500 ft^2 = **0.2 lbs of a.i./acre**

Use Patterns: For use on lawns around home foundations, in ornamental/flower and vegetable gardens.

I. Action Requested: Respond to the rebuttal to efficacy review for DP# 426481, dated 5/22/2015. The Scotts Company (Scotts) would like PERC to reconsider many of the recommendations posed by the previous efficacy review.

II. Background: The product in question for this review is a new Scotts product. Scotts submitted eight MRIDs to

support marketing claims relating to efficacy against fire ants (foragers and mounds), scorpions, ticks, carpenter ants, pharaoh ants, centipedes, and chiggers. In the previous review, MRIDs 44137401, 44137402, 44638801, 44891902, 45298601, 47086001, 46566201, were ruled unacceptable for either testing rates above the minimum rate given on the label, having unclear methods, or by having a forced exposure of greater than 4 hours before mortality was determined. MRID 46911801 was determined to be supplementary for the product as it was an argument rather than a study with raw data.

III. Rebuttal Response (rebuttal attached below):

1. **Scotts:** Efficacy Review: Mark Suarez, June 21, 2007, Ref Dec # 369501, DP Barcode 338481 states that the study supports a 3 month residual claim at 0.2 lb a.i./acre for fire ants, American dog ticks, brown recluse spiders, and scorpion (review references MRIDs 47086001, and 46566201). As the studies support 3 month control at the higher rate, we suggest adding a statement to the current table: Insects Killed/Controlled for 3 months: "Use [product name] at a rate of 4 lbs per 1,000 sq. ft. to kill and provide 3 month control."
   EPA Response: The EPA thanks Scotts for bringing to our attention the 2007 review that accepted 3 month residual claims against fire ants, American dog ticks, brown recluse spiders, and scorpions at a rate of 0.2 lbs of bifenthrin/acre (MRID 46566201, 47086001). The three month control claim against the four species listed above is acceptable at the rate 0.2 lb a.i./acre.

2. **Scotts:** Efficacy Review: Kevin Sweeney, December 8, 2006, Ref Dec # 369501, DP Barcode 332306 supports at the rate of 0.049-0.198 lb a.i./acre the remaining kill/control claims for the pests listed on the label. Supports, "Starts to kill/to work immediately* *after watering in or irrigating" and kills 100 plus insects. This efficacy review references 46911801 as the submitted study and also cited additional MRIDs: 44137401, 44137402, 44891902, 45298601. The studies reviewed were all cited on Scotts data matrix for the proposed registration.
   EPA Response: The conclusions in the 2006 review are based off of the cited MRIDs which are subsequently addressed and are correctly referenced (with the exception of one MRID that is left off of Scotts' list above).

   MRID 46911801: The 12/8/2006 review briefly summarizes MRID 46911801, and states that no new data are included in the study. The review then points to additional cited studies that support claims. As this particular MRID is an argument for efficacy instead of a study with data, it did not and will not support any claims. The evaluation of this MRID remains unchanged for the current review.

   MRIDs 44137401 and 44137402, tested two bifenthrin formulations, a granular formulation and a liquid formulation. The granular, bifenthrin formulation was 0.2 lb of a.i./acre. The EPA's evaluation for these studies remains unchanged, collectively they support that the product kills deer ticks and American dog ticks at 0.2 lbs of a.i./acre.

   MRID 44891902 was ruled unacceptable because the rate of the study does not match the rate of the label. After further review to address the rebuttal, this MRID is unacceptable at all rates because the methods clearly state the moribundity and mortality were combined in the determination of efficacy. PERC's current standards do not allow these metrics to be combined for calculating efficacy.

   MRID 45298601 addressed a wider range of bifenthrin rates. As Scotts brought the 2006 review to our attention, the studies included in this review were reevaluated. While the data presented in this MRID show 90% or greater efficacy of granular bifenthrin against numerous public health pests, raw data were not provided and experimental methods (if provided) were insufficient to evaluate the data and determine if they support efficacy claims. This study does not support any claims.

3. **Scotts:** In response to the review of MRID 44638801, the reviewer stated the study was performed with a 0.2% bifenthrin product - however, our records indicate the study was performed with a 0.1% bifenthrin product. Our label lists fire ant foragers under the 3 month residual control list. If mound treatment is included on the market label, the note would be included on the market label that: "3 month control is only for broadcast treatment," however; Scotts does not intend to include a mound

treatment on this market label. *Based on previous reviews and acceptance, we believe fire ant foragers should remain on the label since the higher rate is listed. **Note: EPA Reviewer made the comment that we have the option of increasing the mound rate to 0.89 cups for 30 day control. Rate was the calculated rate based on the ½ cup per mound using a 0.2% bifenthrin product. Since the study indicates a 0.1% bifenthrin, we would need to re-calculate the amount. A qualifier indicating 30 day control could be included. The corrected rate is 7 ounces or 0.44 cups.*

EPA Response: In this study, a few formulations of bifenthrin were tested for efficacy against fire ant mounds. The proposed product is a granular formulation, and in this study the granular formulation of bifenthrin was applied at a rate of 0.2 lb of a.i. per acre. The EPA's evaluation of this MRID remains unchanged and the rate should remain at 0.89 cups per mound, followed by an application of 1-2 gallons of water.

IV. Recommendations:

The following claims are supported:

At the rate of 0.2 lb of granular bifenthrin/acre or higher:

- kills/controls fire ants, brown recluse spiders**, and scorpions for up to 3 months

Kills claims are acceptable in turf, ornamental plants, and vegetable gardens for the above mentioned pests: fire ants, brown recluse spiders, and scorpions.

**a general kills spiders claim is not supported, if sought, the claim should specify that it does not include black widow, sac, and hobo spiders.

Claims that are not supported:

- 3 month control of chiggers, harvester ants, any species of tick*, fleas
- Kills pharaoh ants, carpenter ants, any species of tick*, fleas
- Kills quickly/kills immediately claims
- General kills spiders claim
- General kills ticks claim
- Kills mites
- Kills fire ant mounds at a rate of 1-3 tablespoons per mound
- Kills ticks that may transmit disease (all diseases are unacceptable).
- Kills millipedes/centipedes
- Kills fleas that may transmit FAD, Flea-bite anemia, tapeworms, Haemobartonellosis, Mycoplasma.

*ticks claim are not supported as the combination of the lone star tick, deer tick and either the American dog tick or the brown dog tick needs to be tested and found acceptable to accept any tick claim.

Note to PM: There is a difference between *kills by* contact and *kills on* contact. For the public health pests on this label, only *kills by* contact is supported.

Also, MRIDs 44891902 and 45298601 have been previously reviewed and are currently supporting other products, however, they do not meet current PERC standards and will not support this proposed product.